

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (Currently Amended) A method for producing a silicon nitride filter, which comprises:

heat-treating, in an atmosphere ~~containing substantially only~~ consisting essentially of nitrogen or consisting essentially of a combination of an inert gas and nitrogen in which the partial pressure of nitrogen is at least 50 kPa ~~to one that contains no oxygen~~, a green body comprising:

from 35 to 90 wt % of silicon nitride particles having an average particle diameter of from 1 to 30 μm ,

from 5 to 60 wt % of a pore-forming agent of spherical organic polymer particles selected from the group consisting of a polyvinyl alcohol, an acrylic resin, a vinyl acetate resin or cellulose ranging in size from 20 to 100 μm and

from 0.1 to 5 wt % of metal oxide solid particles,

provided that the total amount of the silicon nitride particles, the pore-forming agent and the metal oxide particles is at least 90 wt %, to form a porous product having a porosity ranging from 30 to 80 % and an average pore diameter as measured by a mercury immersion method ranging from 5 to 40 μm that effectively filters particulate matter from diesel fuel.

Claim 2. (Original) The method for producing a silicon nitride filter according to Claim 1, wherein the metal oxide particles contain, as the main component, an oxide of at least one metal selected from the group consisting of Al, Ca, Sr, Ba, Y, Mg and Yb.

Claims 3 and 4. (Canceled)

Claim 5. (Original) The method for producing a silicon nitride filter according to Claim 1, wherein the average pore diameter as measured by a mercury immersion method of the filter is from 5 to 20 μm .

Claim 6. (Original) The method for producing a silicon nitride filter according to Claim 1, wherein the heat-treating conditions are such that the green body is maintained in a nitrogen atmosphere at a temperature within a range of from 1,450 to 1,800° C for from 1 to 12 hours to carry out the heat treatment.

Claims 7-8. (Canceled)

Claim 9. (Currently Amended) A method for producing a silicon nitride filter, which comprises:

heat-treating, in an atmosphere ~~containing substantially only~~ consisting essentially of nitrogen or consisting essentially of a combination of an inert gas and nitrogen in which the partial pressure of nitrogen is at least 50 kPa ~~to one that contains no oxygen~~, a green body

comprising:

from 45 to 85 wt % of silicon nitride particles having an average particle diameter of from 1 to 30 μm ,

from 10 to 50 wt % of metal oxide hollow particles and

from 0.1 to 5 wt % of metal oxide solid particles,

provided that the total amount of the silicon nitride particles, the metal oxide hollow particles and the metal oxide solid particles is at least 90 wt %, to form a porous product and having a porosity of 30 to 80 % and an average pore diameter as measured by a mercury immersion method of ranging from 5 to 40 μm which effectively filters particulate matter from diesel fuel.

Claim 10. (Original) The method for producing a silicon nitride filter according to Claim 9, wherein the metal oxide solid particles contain, as the main component, an oxide of at least one metal selected from the group consisting of Al, Ca, Sr, Ba, Y, Mg and Yb.

Claim 11. (Previously Amended) The method for producing a silicon nitride filter according to Claim 9, wherein the average particle diameter of the metal oxide hollow particles ranges 30 to 200 μm .

Claim 12. (Original) The method for producing a silicon nitride filter according to Claim 9, wherein the metal oxide hollow particles contain, as the main component, an oxide of Al and/or Si.

Claim 13 and 14. (Canceled)

Claim 15. (Previously Amended) The method for producing a silicon nitride filter according to Claim 9, wherein the heat-treating conditions are such that the green body is maintained in a nitrogen atmosphere at a temperature within a range of from 1,600 to 1,800° C for from 1 to 12 hours to perform the heat treatment.

Claim 16. (Canceled)

Claim 17. (Previously Presented) The method for producing a silicon nitride filter according to Claim 9, wherein the content of the organic polymer pore-forming agent ranges from 15 to 40 wt %.

Claim 18. (Canceled)

Claim 19. (Previously Presented) The method for producing a silicon nitride filter according to Claim 9, wherein the metal oxide hollow particles have a porosity of 40 to 80 %.

Claim 20. (Currently Amended) A method for producing a silicon nitride filter, which comprises:

heat-treating, in an atmosphere consisting essentially of nitrogen, a green body comprising:

from 45 to 85 wt % of silicon nitride particles having an average particle diameter of from 1 to 30 μm ,
from 10 to 50 wt % of metal oxide hollow particles and
from 0.1 to 5 wt % of metal oxide solid particles,
provided that the total amount of the silicon nitride particles, the metal oxide hollow particles and the metal oxide solid particles is at least 90 wt %, to form a porous product[,] and having a porosity of 30 to 80 % and an average pore diameter as measured by a mercury immersion method of ranging from 5 to 40 μm which effectively filters particulate matter from diesel fuel.

Claim 21. (New) The method for producing a silicon nitride filter according to Claim 9, wherein the average pore diameter as measured by a mercury immersion method of the filter is from 5 to 20 μm .

Claim 22. (New) The method for producing a silicon nitride filter according to Claim 1, wherein the metal oxide hollow particles have a porosity of 40 to 80 %.